

- 4 -

Application No. 10/511,433
Amendment dated April 4, 2006
Reply to Office Action of January 4, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A method for producing a continuous living tissue construct of continuous form, the method comprising allowing edge-to-edge contact of at least two separate side-by-side cell populations maintained in culture, each cell population forming a living tissue sheet, for a period of time sufficient for edge assembling assembly of said at least two cell populations into a single continuous living tissue construct of continuous form.
2. (Original) The method of claim 1, wherein said cell populations are partially or totally confluent.
3. (Currently amended) The method of claim 1, wherein each cell population of said cell populations of are is embedded into a gel before being placed in culture for allowing edge contact.
4. (Original) The method of claim 3, wherein said gel is a collagen gel.
5. (Original) The method of claim 1, wherein said cell populations are composed of homologous or heterologous cells.
6. (Original) The method of claim 1, wherein said cell populations are composed of mammalian cells.
7. (Original) The method of claim 1, wherein said cell populations are composed of cells selected from the group consisting of mesenchymal cells, muscle cells, or fibroblasts.
8. (Original) The method of claim 7, wherein said muscle cells are smooth muscle cells.

- 5 -

Application No. 10/511,433
Amendment dated April 4, 2006
Reply to Office Action of January 4, 2006

9. (Currently amended) The method of claim 1, wherein said cell populations comprise at least one two types of cells.

10. (Currently amended) The method of claim 1, wherein said living tissue sheet is a sheet comprised of at least one cell layer.

11. (Original) The method of claim 1, wherein at least one of said cell populations is a single cell layer, a tri-dimensional tissue construct or a tissue graft.

12. (Original) The method of claim 1, wherein at least one of said cell populations comprises genetically transformed cells.

13. (Currently amended) The method of claim 1, wherein said cell populations are temporarily separated by a separator prior to allowance of edge contact of said populations.

14. (Original) The method of claim 13, wherein said separator is impermeable or allows selective passage of components contained in a culture medium.

15. (Currently amended) The method of claim 13, wherein said edge contact is caused by removal of a said separator between the at least two said cell populations, or by placing said cell populations in contact.

16. (Currently amended) A method for producing a tubular tissue construct comprising rolling around a tubular support the continuous living tissue construct obtained by the method of claim 1.

17. (Currently amended) The method of claim 16, wherein said tubular tissue construct is functions as a blood vessel.

18. (Withdrawn) A single continuous tissue construct produced by the method of claim 1.

- 6 -

Application No. 10/511,433
Amendment dated April 4, 2006
Reply to Office Action of January 4, 2006

19. (Withdrawn) The single continuous tissue construct of claim 18, wherein said living tissue sheets are composed of homologous or heterologous types of cells.
20. (Withdrawn) The single continuous tissue construct of claim 19, wherein said types of cells are mammalian cells.
21. (Withdrawn) The single continuous tissue construct of claim 19, wherein said types of cells are selected from the group consisting of mesenchymal cells, muscle cells, or fibroblasts.
22. (Withdrawn) The single continuous tissue construct of claim 21, wherein said muscle cells are smooth muscle cells.
23. (Withdrawn) The single continuous tissue construct of claim 18, wherein at least one living tissue sheet comprises at least one type of cells.
24. (Withdrawn) The single continuous tissue construct of claim 18, wherein said living tissue sheet comprises at least one cell layer.
25. (Withdrawn) The single continuous tissue construct of claim 18, wherein said living tissue sheets are placed in edge contact after removal of a separator to form said continuous tissue construct.
26. (Withdrawn) The single continuous tissue construct of claim 25, wherein said separator is impermeable or allows selective passage of components contained in a culture medium in which are maintained said living tissue sheets.